



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,841	07/11/2003	Rafael Storz	5005.1053	7983
23280	7590	01/06/2005	EXAMINER	
DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			NGUYEN, THONG Q	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/617,841	STORZ ET AL	
	Examiner	Art Unit	
	Thong Q Nguyen	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/17/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings contain two sheets of figures 1-2 were received on 7/11/2003.

These drawings are objected by the Examiner for the following reason(s).

3. *The drawings are objected to because the use of the numerical reference "3" in figure 1 is unclear. In particular, in figure 1, there are two numerical references "3" in which the reference "3" appeared on the left is used to refer to a laser and the reference "3" shown in the right side of the figure does not refer to anything.* Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the

Art Unit: 2872

changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

5. The disclosure is objected to because of the following informalities: The Summary of the invention is too long and contains numerous details of the invention. Should the summary of the invention be amended for the purpose of providing a brief technical description of the invention and other information be moved to the section of "Detailed description of the Invention"? Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 8-14 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Niwa et al (U.S. Patent No. 5,480,804).

8. Claims 1-5, 8-14 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwa et al (U.S. Patent No. 5,480,804).

Art Unit: 2872

Niwa et al discloses an optical system having a microscope with illuminating apparatus and detecting apparatus for detecting fluorescent light from a sample illuminated by the illuminating apparatus. The system as described in columns 5-8 and shown in figures 1-3 comprises a microscope body (101), an illuminating apparatus (102) and a detecting apparatus (103). The illuminating apparatus comprises a laser source for providing light of at least a particular wavelength for activating a sample stained with fluorescence. The fluorescent from the sample is detected by the detecting apparatus (103) having a spectral element (104) for detecting the value of fluorescent light. The scanning of the fluorescent sample is made via a motor-driven stage (107) so that the whole sample is able to scan in two mutually perpendicular directions so that any point on the sample is able to illuminate and being detected. The movement of the X-Y motor-driven stage is as understood made by a line along X-direction and then in a Y-direction for a continuation of scanning in another line. The use of a processing system for receiving and for analyzing the fluorescent value comprises a computer and a displaying so that the spectral data of the fluorescent light is able to reconstruct and display. It is also noted that a comparison of the value of the fluorescent light and the value(s) stored in computer is able to make as can be seen in columns 6-7.

Regarding to the method claims of claims 1-5 and 8-10, it would have been obvious to one skilled in the art to set forth a set of steps including the step of illuminating a sample stained with fluorescent agent by using a laser source, then

Art Unit: 2872

detecting the fluorescent light from the illuminated spot of the sample at that point via the use of a spectral detector for detecting the value of the fluorescent light; and then moving or scanning the sample via the X-Y motor-driven stage so that the whole sample is illuminated and detected, and transferring the detected data to a processing system having a computer with memory for storing preset data so that the value of the detected fluorescent light is compared and stored.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6-7 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwa et al in view of Engelhardt (DE 199 02 625, submitted by applicant).

The microscope system provided by Niwa et al for scanning and detecting fluorescent light from a sample stained with fluorescent agent as described in columns 5-8 and shown in figures 1-3 does not disclose that the detecting apparatus comprises a prism (or grating) spectrometer and a multiband detector. However, the use of a detecting apparatus having two detecting elements is suggested by Niwa et al as can be seen in columns 9-14. Regarding to the use of a multiband detector with prism spectrometer for detecting spectral fluorescent light, it is noted that such a us is known in the art as can be seen in the present

Art Unit: 2872

specification in page 2 and in the microscope provided by Engelhardt. In particular, Engelhardt discloses a confocal microscope having a detecting system having a prism spectrometer (15) for splitting detected light into a multiple light beams and a multiband detector (25) for receiving the multiple light beams. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the microscope system provided by Niwa et al by utilizing a detecting apparatus having prism spectrometer and multiband detector as suggested by Engelhardt for the purpose of splitting detecting light into a multiple light beams and a multiband detector for receiving the multiple light beam so that the different wavelengths are able to receive simultaneously and reducing the number of separate detector elements being used.

### ***Conclusion***

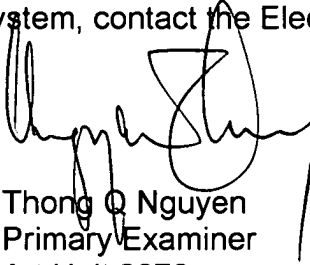
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references are cited as of interest in that each discloses an optical microscope having a detecting system for detecting fluorescent light from a sample.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Nguyen  
Primary Examiner  
Art Unit 2872

\*\*\*